Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 5. (Cancelled).

6. (Currently Amended): A method of detecting a malfunction during a displacement of an element by a drive system in a component placement device, said method comprising the steps of:

determining a difference between a predetermined value and an actual value at regular intervals during the displacement of the element in the component placement device;

determining a derivative of the difference at regular intervals, wherein the difference and the derivative both fluctuate around an equilibrium value;

sampling the values of the difference and the derivative on one side of the equilibrium value;

multiplying the sampled values of the difference and the derivative;

comparing the multiplied values to a reference value; [[and]]

detecting the malfunction if the multiplied values are greater than the reference value; and

controlling the drive system with a processor to displace or stop movement of the element when the malfunction is detected.

7. (Currently Amended): The method ~~as claimed in~~ according to claim 6, wherein the side of the equilibrium value on which the difference and derivative values are sampled is dependent on the direction in which the element is displaced.

8. (Currently Amended): The method ~~as claimed in~~ according to claim 6, further comprising the step of:

filtering the derivative.

9. (Currently Amended): The method ~~as claimed in~~ according to claim 6, wherein the predetermined value represents a desired position of the displaceable element, and wherein the actual value represents an actual position of the element.

10. (Currently Amended): A component placement device configured to detect a malfunction during a displacement of an element, the component placement device comprising:

a processor configured to:

cause a displacement of the element along a path that defines a series predetermined positions;

determine an actual position of the element corresponding to each of the predetermined positions during the displacement of the element; ~~element,~~

determine a difference between each actual position of the element and the corresponding predetermined position of the element; ~~element,~~

determine a derivative of the difference, wherein the difference and the derivative both fluctuate around an equilibrium value; ~~value,~~

sample the values of the difference and the derivative on one side of the equilibrium value; ~~value,~~

multiply the sampled values of the difference and the derivative; ~~derivative,~~

compare the multiplied values to a reference value; ~~value, and~~

detect the malfunction if the multiplied values are greater than the reference value; and

displace or stop movement of the element when the malfunction is detected.

11. (Previously Presented): The component placement device according to claim 10, wherein the processor comprises a control circuit, and wherein the control circuit comprises:

a drive system configured to displace the element along the path that defines the series predetermined positions.

12. (Previously Presented): The component placement device according to claim 11, wherein the control circuit further comprises:

a controller configured to control the drive system.

13. (Previously Presented): The component placement device according to claim 12, wherein the control circuit further comprises:

an input configured to determine the actual position of the element corresponding to each of the predetermined positions during the displacement of the element.

14. (Previously Presented): The component placement device according to claim 13, wherein the control circuit further comprises:

a difference determinator configured to determine the difference between each actual position of the element and the corresponding predetermined position of the element.

15. (New): The method according to claim 6, wherein the values of the difference and the derivative are sampled only on one side of the equilibrium value.

16. (New): The component placement device according to claim 10, wherein the processor samples the values of the difference and the derivative only on one side of the equilibrium value.